Exploring Pattern of Smartphone Addiction among Students in Secondary Schools in Lagos State and its Counselling

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Abstract— *Smartphone addiction could be described as smartphone over-dependence or smartphone overuse. It is a form of addiction that has become one of the most prevalent non-drug addictions today. Smartphone overuse was nevertheless shown to imply various types of dysfunctional behaviours and adverse consequences.This paper therefore, eexplored pattern of smartphone addiction among students in secondary schools in Lagos state and its counselling. One research question and onehypothesis were raised to guide the research. The sample consisted of one hundred and fifty (150) students randomly selected from students in secondary schools in Lagos state. A 30-item questionnaire titled "Pattern of Smartphone Addiction" (PSA) was designed for data collection. Cronbach's Alpha reliability coefficient of the instrument stood at 0.84. The study adopted the descriptive survey design to seek information. Data analysis was carried out with the use of percentages and Multiple Regression Analysis to test the hypotheses at 0.05 level of significance. Results showed that music / movies, virtualrelationship, cybersex and videogames are found to have statistically significant positive correlation to smartphone addiction and they are the strongestpattern of smartphone addiction among students in secondary schools in Lagos state.. Counsellors, parents and teacher should watch out for these pattern of smartphone addiction and properly guide the students.*
Keywords— *Pattern , smartphone addiction, students, secondary schools.*

I. INTRODUCTION

Smartphone addiction could be described as smartphone over-dependence or smartphone overuse. It is a form of addiction that has become one of the most prevalent non-drug addictions today. smartphone use was nevertheless shown to imply various types of dysfunctional behaviours and adverse consequences such as (1) dangerous use, defined as the tendency to use the smartphone while driving; (2) prohibited use, defined as the tendency to use the smartphone in banned places; (3) dependence symptoms, based on features of addictive behaviours (for example, loss of control, occurrence of negative effect in situations or contexts in which the use of the smartphone is not possible or allowed); and (4) financial problems, which reflect the extent to which smartphone use

resulted in tangible financial problems (this latter subscale can be considered a measure of negative outcome in daily life) (Rutland, Sheets and Young, (2007). Gordon (2019) noted that in many ways, social media has enriched our lives by connecting and inspiring people. But there is a dark side as well. Aside from all the negative posts on social media, the cyberbullying, and the FOMO (fear of missing out) that exists, recent studies indicate that excessive social media use not only leads to poor decision-making, but people who use social media incessantly often have attitudes, thoughts, and behaviours that mimic those of a drug addict.

Researchers at Michigan State University have found that people who report using social media a lot tend to struggle with decision-making. As part of their study, participants

answered questions about their social media use. The questions were tailored to see how dependent people were on social media, as well as how they felt when they could not use it and how they would feel about never using it again. Since this type of deficit in decision-making skills often goes hand-in-hand with drug addiction as well as a gambling addiction, the researchers likened the results of excessive social media use to aspects of an addiction.

For some people, the thought of not being able to check their social media accounts causes them to break out in a cold sweat. They get nervous and anxious and are not sure how to handle the situation. When this occurs, therapists often refer to this as social media anxiety disorder, which may share similarities to social anxiety disorder. This connection is not surprising given that anxiety disorders are the most common mental health disorder in the United States; and technology seems to be making things worse. In fact, appears that the more technology people acquire, the more stressed out they become. For instance, researchers estimate that 20 percent of people with social media accounts cannot go more than three hours without checking them; and for people with social media anxiety disorder, just being away from their social media accounts for just a few minutes can cause severe anxiety. Aside from the obvious anxiety and nervousness that being away from social media can cause some people, there are some other telltale signs that they may have an addiction to social media. These include everything from isolating themselves from others, losing interest in activities they once found enjoyable, and getting agitated, angry, or anxious when they are unable to check social media.

1.1 Statement of the problem

It has been established that there is a negative correlation between addiction to smartphone and academic success and also a positive correlation between addiction to smartphone and the level of depression. Sheopuri and Sheopuri (2014) observed that extent of addictive behaviour towards the usage of smartphones and the relation between the users of the smartphones and the psychological behaviour among adolescents in Bhopal, India. They showed that smartphone usage is so strongly integrated in to young people's behaviour that symptoms of behavioural addiction, such as smartphone usage interrupting their day to day activities.

1.2 Objective of the study

Therefore, the objective of this paper is to explore pattern of smartphone addiction among students in secondary schools in Lagos state and its counselling.

II.   REVIEW OF RELATED LITERATURE

Hurley (2019), stated that as it turns out, parents have reason to worry. Results of a 2016 Common Sense Media Report found that 50 percent of teens "feel addicted" to mobile devices, while 59 percent of parents surveyed believe that kids are addicted to their smartphones. This survey also showed that 72 percent of teens and 48 percent of parents feel the need to immediately respond to texts, social-networking messages, and other notifications; 69 percent of parents and 78 percent of teens check their devices at least hourly.

A 2018 Pew Research Report showed that 45 percent of teens said they use the Internet "almost constantly," and another 44 percent said they go online several times a day. According to this report, 50 percent of teenage girls are "near-constant" online users, compared to 39 percent of teenage boys. 95 percent of teens have access to a smartphone.

Given that teens use their smartphones for a variety of reasons, both personal and academic (often simultaneously), it helps to focus less on counting the minutes of use and more on *how* they use their smartphones. Parents hear a lot about the importance of teaching balance, but part of evaluating for a healthy balance lies in understanding how teens actually use their smartphones and what purpose that the use serves them. YouTube, for example, can be both recreational and academic.

A 2016 report published in *Frontiers in Psychiatry* suggests using the DSM-5 criteria for compulsive gambling and substance abuse to measure problematic smartphone use. While problematic smartphone use is not defined as an addiction, it can be evaluated as a behavioural disorder. Using this model, potential symptoms might include the following:

i.   Conscious use in prohibited contexts or potentially dangerous situations (e.g. texting while driving)

ii.   Excessive use that causes conflicts with family; withdrawing from family or shared events in favour of smartphone use

iii.   Negative effects on school, family, social, or emotional functioning

iv.   Continued excessive use despite negative effects

v.   Impulsive, frequent, constant checking of smartphone, even in short bursts (feels strong need to check every few minutes)

vi.   Insomnia or sleep disturbances related to frequent checking

vii.   Excessive urgency or need to be connected

viii. Increase in use to achieve satisfaction or counteract dysphoric (sad) mood

ix.   Need to respond immediately to messages and alerts

x.   Increased anxiety and/or irritability if smartphone is not accessible

xi.   Feelings of unease when unable to use the smartphone

Several researches had found out some trait related to Smartphone addiction which encompasses a variety of impulse-control problems which has become a regular occurrence or pattern. Some of the observed patterns are:

a. Musical/Movies: Most are so addicted to their smartphone majorly to listen to music and watch movies. The addiction to music and movies are so strong to the extent that some of them will put their headphone on while sleeping. The rate and ease at which musical and movies can be downloaded make this addiction very strong.

b. Ringxiety: Subba, Mandelia and Nagraj (2013) explored the ringxiety (Phantom ringing) and other perceived effects, as well as the pattern of the smartphone usage among college students in South India, Mangalore, and they found that mostly, the person whom they talked to on their phones were parents for 220 (51%) of the students. 150 (48%) talked for less than half hour in a day and 137 (41%) were high volume message users. "Ringxiety" were more likely to use their phones at restricted place like class rooms (99%) and libraries (60.3%). Cagan, Unsal and Celik (2014) stated that daily smartphone use has increased the level of addiction.

c. Virtual relationships: Addiction to social networking, dating apps, texting, and messaging can extend to the point where virtual, online friends become more important than real-life relationships. We have all seen the couples sitting together ignoring each other and engaging with their smartphones instead. While the Internet can be a great place to meet new people, reconnect with old friends, or even start romantic relationships, online relationships are not a healthy substitute for real-life interactions. Online friendships can be appealing as they tend to exist in a bubble, not subject to the same demands or stresses as messy, real-world relationships. Compulsive use of dating apps can change your focus to short-term hook-ups instead of developing long-term relationships.

d. Information overload: Compulsive web surfing, watching videos, playing games, or checking news feeds can lead to lower productivity at work or school and isolate you for hours at a time. Compulsive use of the Internet and smartphone apps can cause you to neglect other aspects of your life, from real-world relationships to hobbies and social pursuits.

e. Cybersex addiction: Compulsive use of Internet pornography, sexting, nude-swapping, or adult messaging services can impact negatively on your real-life intimate relationships and overall emotional health. While online pornography and cybersex addictions are types of sexual addiction, the Internet makes it more accessible, relatively anonymous, and very convenient. It is easy to spend hours engaging in fantasies impossible in real life. Excessive use of dating apps that facilitate casual sex can make it more difficult to develop long-term intimate relationships or damage an existing relationship.

d. Online compulsions: such as gaming, gambling, stock trading, online shopping, or bidding on auction sites like eBay can often lead to financial and job-related problems. While gambling addiction has been a well-documented problem for years, the availability of Internet gambling has made gambling far more accessible. Compulsive stock trading or online shopping can be just as financially and socially damaging. Most eBay addicts may wake up at strange hours in order to be online for the last remaining minutes of an auction. You may purchase things you do not need and cannot afford just to experience the excitement of placing the winning bid (Help Guide, 2009),.

f. Video Game: Research studies show that only 10 to 15% of video gamers meet the criteria for addiction. Heavy game use is defined by the American Medical Association as playing for more than two hours per day, yet estimates of the amount of time gamers spend playing video games vary from 6 to 12 hours per week. In fact, reports typically suggest that gamers spend about a quarter of their leisure time playing video games. Considering this, it is easy to be confused about whether you or someone else's gaming falls in the average or heavy ranges.

As with all addictions, it is important when considering the possibility of a video game addiction to not simply consider the amount of time spent gaming, but also the function it is serving the individual. Video game playing, as one of a range of recreational activities, may not be harmful or indicate an addiction. On the other hand, when game playing is addictive, it takes over as the person's main way of coping with life, with other important areas of life being neglected or disrupted as a result.Video game addiction or video game overuse is seen most commonly in players of the persistent multiplayer gaming universe, or Massive Multiplayer Online Role-

Playing Game—MMORPG games for short, who make up 9.1% of gamers, and may overlap with other types of internet addiction or computer addiction. These games hold many attractions for gamers—they are interactive, social, competitive, and happen in real-time (Hartney, 2019).

According to several researches on smartphone addiction, people who are addicted to smartphone shows that they have, poorer mental health and cognitive functioning including poorer impulse control and ADHD symptoms, when compared to people who are not Such addict also have increased emotional difficulties, increased depression, anxiety,social isolation, and are others.

III. RESEARCH QUESTION/HYPOTESIS

To aid the study, one research question was asked:

1. What are the various identified pattern of smartphone addiction among students?

One research hypotheses were equally postulated and tested:

1. There is no significant relationship between pattern and Smartphone addiction of students.

IV. METHOD

The study adopted the descriptive design to seek information about pattern of smartphone addiction among students in secondary schools in Lagos state. The sample for the study consisted of 150 students drawn from some secondary schools in Lagos state.The participants were randomly selected. A 30-item questionnaire designed by the researchers called "Pattern of Smartphone Addiction" (PSA) which consisted of two sections: A & B was designed for data collection. Section A sought information on students' demographic data, section B sought information on students' pattern of smartphone addiction which include : Musical/ Movies, Ringxiety, Virtual relationships, Information overload, Cybersex addiction, Online compulsions, Video Game: The instrument was validated by experts in the field of psychometrics. The reliability of this instrument was tested using the Cronbach's Alpha reliability coefficient and it stood at 0.84. The questionnaire was administered on individual basis. The collected data from the instrument was analyzed using percentage, Multiple Regression Analysis to test the hypotheses at 0.05 level of significance.

V. RESULTS

Research Question: What are the various identified pattern of smartphone addiction among students?

Table 1: Patternofaddictionamong students

		Frequency	Percent	Cumulative Percent
Valid	Musical / Videoe	40	26.7	26.7
	Videovgames	30	20.0	46.7
	Cyber sex	25	16.7	63.4
	Vitual relationship	20	13.3	76.7
	Ringxiety	15	10.0	86.7
	Info Overload	10	6.7	93.3
	Compulsion	10	6.7	100.0
	Total	150	100.0	

VI. FINDINGS

From table 1 above, Music / movies correspond to 26.7 %, Videogamesis 20 %, Cybersex is 16.7 %,Virtual relationship is 13.3%, ringxiety is 10 %, information overload is 6.7% and online compulsion is also 6.7 %. The pattern with highest numbers from this table are music / movies, videogames and cybersex. This has already form a pattern and they most occurring variables.

Research Hypothesis: There is no significant relationship between pattern and Smartphone addiction of students

Table 2: Model Summary of pattern of smartphone addiction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901[a]	.812	.802	2.347

a. Predictors: (Constant), Videogames, Infooverload, Virtualrelationship, Ringxiety, Cybersx, Compulsion, Musicmovies

Table 2 above revealed that the R is 0.901 which indicates a good pattern of all independent variables. Hence there is a strong positive relationship between pattern and smartphone addiction.

Also, the R^2 is 0.812 which is the proportion of variance in the dependent variable and it explains81.2% of the variability of our dependent variable, that is, smartphone addiction

Table 3: ANOVA of pattern of smartphone addiction

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3371.265	7	481.609	87.445	.000[b]
	Residual	782.075	142	5.508		
	Total	4153.340	149			

a. Dependent Variable: Addiction

b. Predictors: (Constant), Videogames, Infooverload, Virtualrelationship, Ringxiety, Cybersx, Compulsion, Musicmovies

The table 3 above shows that the independent variables statistically significantly predict the pattern of dependent variable, $F(7, 142) = 87.445$, $p <0.005$ (i.e., the regression model is a good fit of the data).

Table 4 Coefficients of smartphone addiction

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-5.641	2.410		-2.341	.021	-10.406	-.877
	Music / movies	.338	.070	.577	4.854	.000	.201	.476
	Ringxiety	-.022	.023	-.048	-.947	.345	-.068	.024
	Virtualrelationship	.084	.018	.182	4.694	.000	.049	.119
	Info-overload	-.018	.022	-.038	-.789	.432	-.062	.027
	Cybersex	.162	.072	.270	2.250	.000	.020	.305
	Compulsion	.002	.044	.003	.035	.972	-.084	.088
	Videogames	.014	.037	.027	.382	.000	-.059	.087

a. Dependent Variable: Addiction

Table 4 also indicates that though pattern were listed for study are musical /videos, ringxiety, virtual relationships, information overload, cybersex addiction, online compulsions and video game, but Music / movies, virtualrelationship, cybersex and videogames are statistically significant and are the strongestpattern of smartphone addiction among students in secondary schools in Lagos state. This concludes that the regression model used in this study is adequate or in other words, the model was fit.

VII. DISCUSSION

The basic objective this research study and scientific research works was intended toward exploring the relevant factors that instigate and thus serves as pattern or influencing variables of explore pattern of smartphone addiction among students in secondary schools in Lagos state. In order to do so few basic and important variables were derived from the through and in-depth review of the literature and also the self-

conceptualization and understanding of the concerned researchers.

Seven factors in the form of musical /videos, ringxiety, virtual relationships, information overload, cybersex addiction, online compulsions and video game were examined to assess the relationship between smartphone addiction among students in secondary schools in Lagos state and these important independent variables. At the end of the analysis using multiple regression model, music / movies, virtualrelationship, cybersex and videogames are found to have statistically significant positive correlation and are they are the strongestpattern of smartphone addiction among students in secondary schools in Lagos state..

The result of these findings is in agreement with a 2016 report published in *Frontiers in Psychiatry* which suggests using the DSM-5 criteria for compulsive gambling and substance abuse to measure problematic smartphone use. While problematic smartphone use is not defined as an addiction, it can be evaluated as a behavioural disorder. Using this model, potential symptoms might include the following: conscious use in prohibited contexts or potentially dangerous situations, excessive use that causes conflicts with family; withdrawing from family or shared events in favour of smartphone use impulsive, frequent, constant checking of smartphone, even in short bursts (feels strong need to check every few minutes) and insomnia or sleep disturbances related to frequent checking. Others are excessive urgency or need to be connected, need to respond immediately to messages and alerts, increased anxiety and/or irritability if smartphone is not accessible and feelings of unease when unable to use the smartphone.

VIII. RECOMMENDATION

From the findings of this study it is recommended that secondary school students should reduce the use of their smartphone as this leads to various types of dysfunctional behaviours and adverse consequences.Also secondary school authorities should design an awareness programme that will discourage the smartphone overuse among their students. Parents should monitor their children's frequent daily usage of smartphone so that it will not lead to addiction. The government should come up with policies that will regulate smartphone usage among students generally. Government can also regulate and monitor smartphone manufacturers on the applications and software that will be included on the smartphone.

IX. CONCLUSION

Based on the findings from this study, it could be concluded that spending a lot of time connected to smartphone only becomes a problem when it absorbs so much of time. It causes an individual to neglect face-to-face relationships, work, school activities, hobbies, or other important things in life. A vivid indicator of addiction is when an individual you find him/herself ignoring friends to read facebook updates or compulsively checking smartphone while driving or during school lectures, then it is time to reassess smartphone use and strike a healthier balance in your life.

The finding from this research suggests there is need for regular counselling against the smartphone overuse among students in secondary schools in Lagos state. Also, counselling services are expected to be included in the curriculum of primary schools. With this in place, the problem of smartphone abuse would be reduced when they get to secondary schools. There is also the need for counsellors to create awareness on both print and non-print media on the dangers of smartphone addiction on young people. Further, counsellors can also organise jamboree and seminar on the dangers of smartphone addiction.

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